

Goal: Understand the method of **Sealed Bids**.

1. Sealed bids: general idea

- Way to divide up items that cannot be subdivided
 - house, car, jewelry, etc.
- Requires cash to balance out valuations

2. Steps:

- (a) Make a list of items to be divided
- (b) Each person puts in a sealed bid (for each item)
- (c) Determine total bid
- (d) Determine fair share of each person's total bid: (their total bid) / (# items people)
- (e) Each item is awarded to the highest bidder
- (f) Holding pot for money:
 - if award > fair share (award - fair share is positive), put **in** money to pot
 - if award < fair share (award - fair share is negative), take **out** money from pot
- (g) Divide remaining surplus in pot equally

3. Example: ITEMS: Vase, Earrings, Ice Skates. PEOPLE: Sam, Omar

	Sam	Omar
Vase	\$10	\$5
Earrings	\$4	\$15
Ice Skates	\$20	\$8
Total Bid	$10 + 20 + 4 = 34$	$5 + 15 + 8 = 28$
Fair Share	$34 / 2 = 17$	$28 / 2 = 14$
Winning Bid / Who gets what	Vase, ice skates $\$30$ total	Earrings $\$15$ total
(award) - (fair share)	$30 - 17 = 13$	$15 - 14 = 1$
puts in pot / gets from pot	puts in \$13	puts in \$1
total surplus	$13 + 1 = 14$	
Share of surplus	$14 / 2 = \$7$	\$7
Final Allocation	Vase, skates, \$7	Earrings, \$7

Sam got $\$30 - 13 + 7 = \24
in total value

Omar got $\$15 - 1 + 7 = \21 in total value

4. Same Example with different bids:

	Sam	Omar
Vase	\$10	\$5
Earrings	\$13	\$2
Ice Skates	\$20	\$8
Total Bid	\$43	\$15
Fair Share	$43/2 = \$21.50$	$15/2 = \$7.50$
Winning Bid / Who gets what	Vase, earrings, skates total = \$43	nothing! total = \$0
(award) – (fair share)	$43 - 21.50 = 21.50$	$0 - 7.50$
puts in pot / gets from pot	puts in \$21.50	gets \$7.50
total surplus	$21.50 + 7.50 = 28$	
Share of surplus	$28/2 = 14$	14
Final Allocation	Vase, earrings, skates and pays \$14.50 ($-21.50 + 14$) $= -14.50$	gets $7.50 + 14$ $= 21.50$ (only cash!)